

**REMARKS**

Claims 1-14 are all the claims pending in the application. By this Amendment, Applicant editorially amends claims 2-6 and 8. The amendments to claims 2-6 and 8 are made to correct a minor stylistic preference of the Examiner, and do not narrow the literal scope of the claims and thus do not implicate an estoppel in the application of the doctrine of equivalents. The amendments to claims 2-6 and 8 were not made for reasons of patentability. In addition, by this Amendment, Applicant adds claims 10-14.

**I. Preliminary Matters**

***A. Priority***

As preliminary matters, the Examiner failed to acknowledge the claim for priority, as well as the receipt of a certified copy of the priority document filed on October 23, 2003. Therefore, Applicant respectfully requests the Examiner to check the appropriate boxes on the Form PTO-326 in the next communication, indicating that the claim for priority is acknowledged and that the certified copy of the priority document has been received.

***B. Drawings***

Moreover, the Examiner failed to acknowledge that the drawings filed on October 23, 2003 are accepted. Therefore, Applicants respectfully request the Examiner to check the appropriate box on the Form PTO-326 in the next communication, indicating that the drawings are accepted.

***C. Information Disclosure Statement***

Moreover, the Examiner crossed out two references listed on Form PTO/SB/08 A & B filed with an Information Disclosure Statement on October 23, 2003. The Examiner's failure to consider the two references is improper.

With respect to the Information Disclosure Statement, the Examiner should initial these two references at least for the following reasons. First, with regard to the Examiner's assertion that the British reference GB 1024869 is not in the English language, the Examiner is clearly in error. The British reference is in the English language. The Examiner is respectfully requested to additionally note that GB 1024869 counterparts to US Patent No. 3,888,110 to Clark, which the Examiner made of record in the Non-Final Office Action dated June 30, 2004 (hereinafter "Office Action").

Second, with respect to the German reference, a concise explanation was supplied to the Examiner in the form of a German Office Action with partial translation indicating relevance of the German reference. The Examiner is also respectfully requested to note that the German reference has an English counter part in GB Patent No. 818,761. A relevant portion of the MPEP § 609 states:

"Where the information listed is not in the English language, but cited in a search report or other action by a foreign patent office in a counterpart foreign application, the requirement for concise explanation of relevance can be satisfied by submitting an English-language version of the search report or action which indicates the degree of relevance found by the foreign office. This may be an explanation of which portion of the reference is particularly relevant, to which claims it applies, or merely an "X", "Y", or "A" indication on a search report."

Applicant filed a copy of the German Office Action with an English translation of the pertinent portions, which cited the filed references on October 23, 2003, thereby satisfying the concise explanation requirement. As a result, it was improper for the Examiner not to strike through these two references.

Therefore, Applicant respectfully requests the Examiner to indicate consideration of both references. For Examiner's convenience, a clean Form PTO/SB/08 A & B is enclosed listing the two references. In addition, for the Examiner's convenience a duplicate copy of the German Office Action with an English translation of the pertinent portions is enclosed.

***D. Claims Objections***

The Examiner objected to claims 2-6 and 8 because the word "Claim" is capitalized. Applicant has revised the claims, and respectfully submits that the claims as now presented no longer include the potential informality mentioned by the Examiner. Applicant therefore respectfully requests the Examiner to withdraw the objections to the claims 2-6 and 8.

**II. Summary of the Office Action**

Turning to the merits of the Office Action, the Examiner rejected claims 1-8 under 35 U.S.C. § 103(a) and indicated that claim 9 is allowed.

**III. Claim Rejections under 35 U.S.C. § 103**

Claims 1-8 are rejected under 35 U.S.C. § 103(a). In particular, claims 1-4, 7, and 8 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent no. 3,888,110 to Clark (hereinafter "Clark") in view of GB 2079452A to Jackson et al. (hereinafter "Jackson") and claim 5 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Clark and Jackson in view of U.S. Patent no. 6,550,961 to Ueda (hereinafter "Ueda"). Applicant respectfully traverses

these rejections and respectfully requests the Examiner to reconsider this rejections in view of the following remarks.

First, with respect to claims 1-4, 7, and 8, Applicant respectfully submits that one of ordinary skill in the art would not have been motivated to combine Clark and Jackson in the manner suggested by the Examiner, that the alleged combination is not an obvious design choice, and that the Examiner is exercising impermissible hindsight in an attempt to meet the unique combination of features of the rejected claims.

A critical step in analyzing the patentability of claims pursuant to section 103(a) is casting the mind back to the time of invention, to consider the thinking of one of ordinary skill in the art, guided only by the prior art references and the then-accepted wisdom in the field. *See In re Kotzab*, 55 USPQ2d 1313, 1316 (Fed. Cir. 2000) (*citing In re Dembiczak*, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999)); MPEP § 2143.01. Close adherence to this methodology is especially important in cases where the very ease with which the invention can be understood may prompt one “to fall victim to the insidious effect of a hindsight syndrome wherein that which only the invention taught is used against its teacher.” *Kotzab*, 55 USPQ2d at 1316 (*quoting W.L. Gore & Assocs., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1553, 220 USPQ 303, 313 (Fed. Cir. 1983)).

Most if not all inventions arise from a combination of old elements. *In re Kotzab*, 55 USPQ2d at 1316 (*citing In re Rouffet*, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457 (Fed. Cir. 1998)). Thus, every element of a claimed invention may often be found in the prior art. *Id.* However, identification in the prior art of each individual part claimed is insufficient to defeat patentability of the whole claimed invention. *Id.* Rather, to establish obviousness based on a

combination of the elements disclosed in the prior art, there must be some motivation, suggestion or teaching of the desirability of making the specific combination that was made by the applicant. *In re Kotzab*, 55 USPQ2d at 1316 (citing *In re Dance*, 160 F.3d 1339, 1343, 48 USPQ2d 1635, 1637 (Fed. Cir. 1998); and *In re Gordon*, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984)).

“Although the suggestion to combine references may flow from the nature of the problem, ‘defining the problem in terms of its solution reveals improper hindsight in the selection of the prior art relevant to obviousness.’” *Exolochem, Inc. v. Southern California Edison Co.*, 2000 U.S. App. LEXIS 22681, \*28 (Fed. Cir. 2000) (citing *Monarch Knitting Mach. Corp. v. Sulzer Morat GmbH*, 139 F.3d 877, 880, 45 USPQ2d 1977, 1981 (Fed. Cir. 1998).

“Therefore, when determining the patentability of a claimed invention which combines two known elements, the question is whether there is something in the prior art as a whole to suggest the desirability, and thus obviousness, of making the combination.” *Id.* at \*29-30 (citing *In re Beattie*, 974 F.2d 1309, 1311-12, 24 USPQ2d 1040, 1042 (Fed. Cir. 1992).

On the present record, one of ordinary skill in the art would not have been motivated to combine the references in the manner suggested by the Examiner.

In general, Clark teaches an apparatus for determining the thermal conductivity of gases, (see e.g., col. 1, lines 1-2). In particular, Clark teaches a detector apparatus having Duralumin blocks 1 and 2 separated by a perforated aluminum gasket 3, which is sandwiched between two subsidiary aluminum foil gaskets 3a and 3b. The perforation takes the form of slots 4 which define narrow elongated cells 5 when combined with the Duralumin blocks in the finished assembly. The block 1 has a drilled port 7 providing admission and withdrawal of gases from

the cells. Each cell contains two platinum wires 8 running parallel the length of the cell. In addition, Clark teaches thicker support wires 8a pass through holes drilled in the block 2 and are soldered to the ends of the platinum wires. Filament 8 is soldered to the support 8a. The right hand wire 8a is held over towards the center of the cell while the filament 8 is soldered to the support 8a. The right hand wire 8a is then freed and springs back, tensioning the filament 8 (Figs. 1 and 2; col. 4, line 58 to col. 5, line 25).

Jackson, on the other hand, relates to a helically wound actuator. In particular, Jackson shows in Fig. 2, a helically wound thermistor 12 mounted between two carriers, where the distance between the carriers is larger in the regions of the thermistor as opposed to in a region farther away from the thermistor (page 2, lines 1 to 32). Neither Clark, nor Jackson discuss the configuration of the carriers. Neither reference teaches or suggests why a particular configuration of the carriers is advantageous. In fact, it is clear that in Jackson, the configuration of the carriers is dictated by the size of the thermistor. Clark's thermistor is of a different size and there is no motivation to use Jackson's carriers with Clark's thermistor.

Indeed, the Examiner does not provide motivation for combining the references. The Examiner only alleges that a particular configuration, absent criticality, is an obvious modification of the Clark's configuration (see page 3 of the Office Action).

Applicant respectfully submits that having at least one of the two carriers configured such that a minimum distance to the other carrier is larger in the central region of the channel than in a region nearer to the channel wall is clearly not an obvious modification as alleged by the Examiner.

In the specification, it is disclosed that straight filaments are not very elastic, and as larger forces to stretch them are not permissible, the filament itself will slacken and sag when heated. In the exemplary, non-limiting, embodiment of the present invention, the configuration of the carriers is used to prevent such slacking. That is, contrary to the Examiner's allegations, the shape and configuration of the carriers is not an obvious modification of the Clark's configuration.

In other words, what the Examiner has termed a matter of design choice is an important aspect of the claimed invention.

The United States Court of Appeals for the Federal Circuit has expressly stated that all *per se* rules of obviousness are legally invalid and that the obviousness analysis must be based on the prior art:

The use of *per se* rules, while undoubtedly less laborious than a searching comparison of the claimed invention -- including all its limitations -- with the teachings of the prior art, flouts section 103 and the fundamental case law applying it. ***Per se* rules that eliminate the need for fact-specific analysis of claims and prior art may be administratively convenient for PTO examiners and the Board. Indeed, they have been sanctioned by the Board as well. But reliance on per se rules of obviousness is legally incorrect and must cease.** Any such administrative convenience is simply inconsistent with section 103, which, according to Graham and its progeny, entitles an applicant to issuance of an otherwise proper patent unless the PTO establishes that the invention as claimed in the application is obvious over cited prior art, based on the specific comparison of that prior art with claim limitations.

In re Ochiai, 71 F.3d 1565, 1572, 37 USPQ2d 1127, 1133 (Fed. Cir. 1995) (emphasis added).

The Examiner has failed to support his assertion with factual evidence or a persuasive line of reasoning. The Examiner's characterization of the claimed limitation as an obvious modification of the device disclosed by Clark is merely an unsupported, generalized conclusion, and not a

reason or showing, as required to support the rejection, and thus constitutes reversible error. Ex parte Garrett, 33 BNA's Patent, Trademark & Copyright J. 43 (1986) (reporting decision of Bd. Pat. App. & Inter. 9/30/86: Appeal No. 580-81). As such, the Examiner is requested to supply appropriate objective factual support or to withdraw the rejection.

If the Examiner maintains the present rejection, Applicant respectfully invites the Examiner to identify relevant prior art that would suggest that such a modification of Clark's reference is an obvious design choice.

Moreover, Jackson discloses a helix thermistor. The length of the filament is greater than the diameter of the socket. It is apparent to one of ordinary skill in the art that this special configuration of the carriers is due to the large extension of the filament in comparison to the relatively small lead-through of the carriers through the wall in the cap. In Clark, the size of thermistor does not dictate such a configuration of the carrier. In fact, as explained above, there is no motivation to use Jackson's carriers for a helix thermistor with Clark's thermistor. But for the present invention, there is no motivation to combine the references in the manner suggested by the Examiner. In other words, the Examiner is exercising impermissible hindsight in an attempt to meet the language of the independent claim 1.

In short, Applicant respectfully submits that the combination provided by the Examiner is improper. The configuration of the carriers is not an obvious design choice but rather an exemplary aspect of the invention. In addition, one of ordinary skill in the art would not have been motivated to combine the references in the manner suggested by the Examiner, and the Examiner is exercising impermissible hindsight in an attempt to meet the claimed language.



Therefore, Applicant respectfully requests the Examiner to withdraw this rejection of claims 1-4, 5, 7, and 8.

In addition, the Examiner alleges that the features of claim 2 is an obvious design choice and lacks any critically (see page 3 of the Office Action). Applicant respectfully disagrees. In the exemplary, non-limiting embodiment of the present invention it is disclosed that the V-shape helps prevent slackening of the filament. That is, clearly the V-shape is not an obvious modification of the Clark's configuration.

#### IV. Allowable Subject Matter

Applicant thanks the Examiner for allowing claim 9.

#### V. New Claims

In order to provide more varied protection, Applicant adds claims 10-14. Claims 10-14 are patentable at least by virtue of their dependency on claim 1.

#### VI. Conclusion

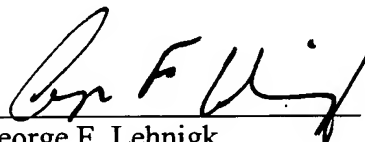
In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly invited to contact the undersigned attorney at the telephone number listed below.

Amendment under 37 C.F.R. § 1.111  
U.S. Application No.: 10/691,808

Attorney Docket No.: Q77165

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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